

244508US323 CONT

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF: :  
Franklin D. LOMAX, JR. : EXAMINER: SPITZER, R.  
SERIAL NO: 10/720,517 : DATE ALLOWED: August 11, 2004  
FILED: November 25, 2003 : GROUP ART UNIT: 1724  
FOR: HIGH RECOVERY PSA :  
CYCLES AND APPARATUS  
WITH REDUCED  
COMPLEXITY

PETITION UNDER 37 C.F.R. § 1.181

COMMISSIONER FOR PATENTS  
ALEXANDRIA, VA 22313-1450

SIR:

37 C.F.R. § 1.181(a)(3) allows petition to invoke the supervisory authority of the Commissioner in appropriate circumstances.

The Applicant respectfully petitions in accordance with 37 C.F.R. § 1.181(a)(3) to compel consideration by the Examiner of the document cited in the Information Disclosure Statement (IDS) filed on May 26, 2004, re-signed copies of which are attached as well as a date-stamped filing receipt.

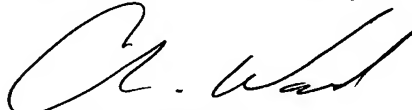
The Applicant has not received any document from the U.S. Patent & Trademark Office indicating that the IDS dated May 26, 2004, was received and/or considered. Accordingly, the Applicant requests a copy of the IDS filed on May 26, 2004, that is signed and dated by the Examiner as being considered as required under MPEP 609 III. C. 2., in order to clarify that the reference cited in the IDS has been considered and made of record.

Application Serial No.: 10/720,517  
Franklin D. LOMAX, JR.

It is respectfully requested that this Petition under 37 C.F.R. § 1.181 be granted and the Examiner compelled to provide the Applicant with a signed and dated copy of the IDS filed on May 26, 2004.

Respectfully Submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.



J. Derek Mason  
Registration No. 35,270  
Attorney of Record

Christopher D. Ward  
Registration No. 41,367

Customer Number

**22850**

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(OSMMN 10/01)

JDM:CDW:brf

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Doc No.: 244508US23 CONT

COMMISSIONER FOR PATENTS  
ALEXANDRIA, VIRGINIA 22313

RE: Application Serial No.: 10/720,517  
Applicants: Franklin D. LOMAX, JR.  
Filing Date: November 25, 2003  
For: HIGH RECOVERY PSA CYCLES AND  
APPARATUS WITH REDUCED  
COMPLEXITY  
Group Art Unit: 1724  
Date Allowed: August 11, 2004  
Examiner: SPITZER, R.

SIR:

Attached hereto for filing are the following papers:

**PETITION UNDER 37 C.F.R. § 1.181**  
**Filing Receipt date-stamped 5/26/04 (Copy)**  
**Information Disclosure Statement (Copy)**  
**PTO-1449 (Copy)**  
**International Search Report (Copy)**

Our check in the amount of \$0.00 is attached covering any required fees. In the event any variance exists between the amount enclosed and the Patent Office charges for filing the above-noted documents, including any fees required under 37 C.F.R. 1.136 for any necessary Extension of Time to make the filing of the attached documents timely, please charge or credit the difference to our Deposit Account No. 15-0030. Further, if these papers are not considered timely filed, then a petition is hereby made under 37 C.F.R. 1.136 for the necessary extension of time. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.

J. Derek Mason

Registration No. 35,270

Customer Number

**22850**

(703) 413-3000 (phone)  
(703) 413-2220 (fax)

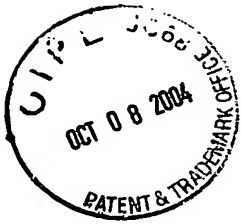
Christopher D. Ward  
Registration No. 41,367



ATTORNEYS AT LAW

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COPY

9

Dept.: E/M

OSMM&N File No. 244508US23 CONT

By: JDM/CDW/brf

✓ Serial No. 10/720,517

In the matter of the Application of: Franklin D. LOMAX, JR.

For: HIGH RECOVERY PSA CYCLES AND APPARATUS WITH REDUCED COMPLEXITY

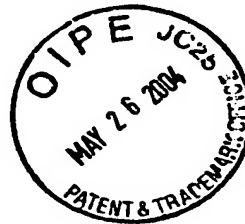
• Due Date: N/A

The following has been received in the U.S. Patent Office on the date stamped hereon

• ■ Information Disclosure Statement

■ PTO-1449

■ International Search Report



Docket No. 244508US23 CONT



COPY

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: Franklin D. LOMAX, JR.

SERIAL NO: 10/720,517

GAU: 1724

FILED: November 25, 2003

EXAMINER: SPITZER, R.

FOR: HIGH RECOVERY PSA CYCLES AND APPARATUS WITH REDUCED COMPLEXITY

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97

COMMISSIONER FOR PATENTS  
ALEXANDRIA, VIRGINIA 22313

SIR:

Applicant(s) wish to disclose the following information.

REFERENCES

- ☒ The Applicant wishes to make of record the attached International Search Report. The references cited in the International Search Report were previously submitted on November 25, 2003.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

RELATED CASES

- ☐ Attached is a list of applicant's pending application(s) or issued patent(s) which may be related to the present application. A copy of the patent(s), together with a copy of the claims and drawings of the pending application(s) is attached along with PTO 1449.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

CERTIFICATION

- ☐ Each item of information contained in this information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.
- ☐ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this statement.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.

J. Derek Mason

Registration No. 35,270

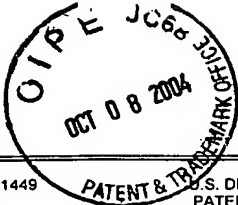
Customer Number

22850

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(OSMMN 05/03)

Christopher D. Ward

Registration No. 41,367

COPY  
SHEET OF 1Form PTO 1449  
(Modified)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEATTY DOCKET NO.  
244508US23 CONTSERIAL NO.  
10/720,517

## LIST OF REFERENCES CITED BY APPLICANT

APPLICANT  
Franklin D. LOMAX, JR.FILING DATE  
November 25, 2003GROUP  
1724

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						
	AL						
	AM						
	AN						

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
					YES	NO
	AO					
	AP					
	AQ					
	AR					
	AS					
	AT					
	AU					
	AV					

## OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

	AW	International Search Report			
	AX				
	AY				
	AZ				<input type="checkbox"/> Additional References sheet(s) attached

Examiner

Date Considered

\*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FILED 5-26-04

COPY  
PATENT COOPERATION TREATYCLASSIFIED: 2604  
GIBSON, SPIVAK, MCCLELLAND  
MAIER & NEUSTADT, P.C.  
DOCKETING DEPT  
Initials/Date Docketed: W2-624  
Type of Request: PCT  
Due Date(s):

From the INTERNATIONAL SEARCHING AUTHORITY

To:  
DEREK J. MASON  
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT,  
PC  
1940 DUKE STREET  
ALEXANDRIA, VA 22314NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL SEARCH REPORT  
OR THE DECLARATION

(PCT Rule 44.1)

Date of Mailing (day/month/year)	05 FEB 2004
Applicant's or agent's file reference 226903WO 23	FOR FURTHER ACTION See paragraphs 1 and 4 below
International application No. PCT/US03/29122	International filing date (day/month/year) 10 October 2003 (10.10.2003)
Applicant H2GEN INNOVATIONS, INC.	RECEIVED IN E/M 2-13-04

1. ☒ The applicant is hereby notified that the international search report has been established and is transmitted herewith.

## Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.

Where? Directly to the International Bureau of WIPO, 34, chemin des Colombettes  
1211 Geneva 20, Switzerland, Facsimile No.: (41-22) 740.14.35

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.

3. ☐ With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:
- ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.
- ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

## 4. Reminders

Shortly after 18 months from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90 bis.1 and 90 bis.3, respectively, before the completion of the technical preparations for international publication.

Within 19 months from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later); otherwise the applicant must, within 20 months from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of 30 months (or later) will apply even if no demand is filed within 19 months.

See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the PCT Applicant's Guide, Volume II, National Chapters and the WIPO Internet site.

Name and mailing address of the ISA/US  
Mail Stop PCT, Attn: ISA/US  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
Facsimile No. (703)305-3230

Authorized officer

Marian Knode

Telephone No. 703-308-0661

Form PCT/ISA/220 (April 2002)

(See notes on accompanying sheet)

RECEIVED IN CHEM  
22-05-04I.D.S. COPY  
DOCKET NO. 226903US2CDW  
BRFOS  
2/6

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 226903WO	<b>FOR FURTHER ACTION</b>	see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.
International application No. PCT/US03/29122	International filing date ( <i>day/month/year</i> ) 10 October 2003 (10.10.2003)	(Earliest) Priority Date ( <i>day/month/year</i> ) 11 October 2002 (11.10.2002)
Applicant H2GEN INNOVATIONS, INC.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the Report**

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

2. ☐ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (See Box II).

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No. 2

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☐ None of the figures



# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/29122

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : B01D 53/02

US CL : 95/96

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 95/96, 97, 98, 100-105, 130; 96/130, 143, 144

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 3,636,679 A (BATTI) 25 January 1972, see entire document	1,2,9-15,20,21,27-39 ----- 3,4,22
X	US 4,371,380 A (BENKMANN) 01 February 1983, see entire document	1,9-15,27-39
X --- Y	US 4,498,910 A (BENKMANN) 12 February 1985, see entire document	1,5,7,9-20,23,27-47 ----- 6,8,24-26,48-50
X	US 4,781,735 A (TAGAWA ET AL) 01 November 1988, see entire document	1,9-15,20,27-39
X	US 5,248,322 A (KUMAR) 28 September 1993, see entire document	1,9-15,20,27-39
X --- Y	US 5,258,059 A (YAMAGUCHI ET AL) 02 November 1993, see entire document	1,5,7,9-20,23,27-47 ----- 6,8,24-26,48-50



Further documents are listed in the continuation of Box C.



See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&"

document member of the same patent family

Date of the actual completion of the international search

20 January 2004 (20.01.2004)

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US

Commissioner for Patents

P.O. Box 1450

Alexandria, Virginia 22313-1450

Facsimile No. (703)305-3230

Date of mailing of the international search report

05 FEB 2004

Authorized officer

Marian Knode

Telephone No. 703-308-0661

# INTERNATIONAL SEARCH REPORT

PCT/US03/29122

## C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X ---	US 5,964,924 A (ENGLER ET AL) 12 October 1999, see entire document	1,5,7,9-20,23,27-47
Y		6,8,24-26,48-50
X ---	US 6,017,382 A (JI ET AL) 25 January 2000, see entire document	1,5,7,9-20,23,27-47
Y		6,8,24-26,48-50,52,54
X ---	US 4,234,322 A (DEMEYER ET AL) 18 November 1980, see entire document	51,53,
Y		52,54
Y	US 6,447,582 A (DE SOUZA) 10 September 2002, see entire document	3,4,22,6,8,24-26,48-50